

Remarks/Arguments

This Amendment and the following remarks are intended to fully respond to the Office Action mailed April 23, 2008. In that Office Action claims 1-53 were examined and all claims were rejected. More specifically, claims 1-53 were subject to a restriction requirement with Group I containing claims 1-20, 45, and 50-53 and Group II containing claims 21-44 and 46-49; claims 46-49 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter; claims 21, 28-29, 34-36, 46 and 47 were rejected under 35 U.S.C. §112 for being indefinite; claims 21-26 and 30 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2004/0003283 to Goodman et al. (“Goodman”); claims 48-49 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,546,416 to Kirsch (“Kirsch”); claims 21-23, 25-28, 30, 32, 36-41, 43, and 46-49 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2003/0009698 to Lindeman et al. (“Lindeman”); claim 24 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lindeman in view of U.S. Publication No. 2004/0015554 to Wilson (“Wilson”); and claims 29, 31, 33-35, 42, and 44 were objected to but would be allowable if rewritten in independent form.

Claims 21-30, 34-36, 39-41, and 46-47 have been amended and claims 1-20, 31, 42, 45, 48-53 have been canceled. No new matter has been added. Reconsideration and further examination of the claims as amended is respectfully requested.

Statement of Substance of Examiner Interview

Applicants thank Examiner Dennison for the in-person interview held on August 13, 2008. In that interview, the general features of the instant application were discussed along with potential claim amendments. No agreement was reached.

Restriction Requirement

Claims 1-53 were subject to a restriction requirement and were divided as follows:

Group I - Claims 1-20, 45, and 50-53 drawn to classification of email messages based on electronic transmission policies; and

Group II - Claims 21-44 and 46-49 drawn to classification of email messages based on a computational puzzle.

In this response, applicant formally elects the claims of Group II without traverse. The claims of Group 1 have been canceled.

Claim Objections

Claims 21, 36, 46 and 47 were objected to for having typographical errors. In response, these claims have been amended to correct the typographical errors pointed out in the Office Action.

Claim Rejections - 35 U.S.C. §101

Claims 46-49 stand rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

In response to this rejection, claims 46-47 have been amended to recite a computer storage medium and claims 48-49 have been canceled. In light of this amendment, Applicants respectfully request that the Examiner withdraw the rejection.

Claim Rejections - 35 U.S.C. §112

Claims 21, 28-29, 34-36, 46 and 47 stand rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out a distinctly claim the subject matter which applicant regards as the invention. In response, Applicant has amended claims 21, 28-29, 34-36, 46 and 47 to overcome the various §112 rejections set forth in the Office Action. Therefore, the §112 rejections are now moot and Applicants respectfully request that the Examiner withdraw these rejections.

Claim Rejections - 35 U.S.C. 102(e)

Claims 21-26 and 30 stand rejected under 35 U.S.C. §102(e) as being anticipated by Goodman.

In contrast to Goodman, embodiments of the present invention relate to complex processing of an email message on the server side prior to sending the email. This

processing results in an answer document that is attached to the email message when sent. The receiver can evaluate the answer document to classify the email as spam or not spam. The more complex the processing involved in the creation or identification of the answer document, the lower the chance that the received email is spam because a computer sending out large volumes of spam messages would not use valuable processing resources in completing a computational puzzle.

In operation, no response or challenge from the receiving side is needed since the answer document provides the necessary information regarding the complexity or processing of solving the computational puzzle. In addition, there is no need for the sending computer and receiving computer to communicate prior to sending the message.

Goodman discloses a system for detection of unsolicited messages. The system of Goodman includes an e-mail component and a challenge component. (*Goodman*, para. [0012]). The challenge component sends a challenge to a sender of an email message. The challenge is sent when a probability associated with the email is above a certain threshold. (*Goodman*, para. [0038]). The challenge can be based upon a code embedded within the challenge. According to Goodman, the use of a challenge based on an embedded code can increase the bandwidth and/or computational load of senders of spam. Other embodiments of Goodman provide that the challenge can be a computational challenge, a human challenge, and/or a micropayment request. (*Goodman*, para. [0039]). However, each challenge sent by the challenge component requires that messages be sent back and forth between the sending computer and the receiving system.

For example, when a message is received and a mail classifier determines a probability that the message is spam, the challenge component sends a challenge to the sender of the email message. If the sending computer transmits a correct answer to the challenge back to the challenge component, the challenge component moves the received message to a legitimate email folder. (*Goodman*, para. [0055]). If however, an answer is not received or if the answer is incorrect, the challenge component moves the message to a spam folder. (*Goodman*, para. [0056]).

In contrast and as stated above, embodiments of the present invention do not require continual communication between the sending computer and the receiving system when transmitting an email message because the sending messaging server expends processing resources and identifies the answer document prior to sending the email. The answer document is provided with the email message and contains information (e.g. an answer to a computational puzzle) which indicates whether the sending messaging system expended processing resources in identifying the answer document. When the email message and corresponding answer document are received, the receiving system evaluates the answer document and classifies the email as spam or not spam.

Part of the above described process is recited in claim 21 which states “an act of the sending messaging server identifying an answer document using the computational puzzle” and “enabling verification by the receiving side domain that the sending messaging server expended computational resources without further communication with the sending messaging server.” Thus, the receiving side domain can verify that the sending messaging server expended processing cycles to identify an answer document prior to sending the message. If it is verified that the sending messaging server expended processing cycles, the message has a reduced likelihood of being spam. Therefore, unlike Goodman, there is no need for the receiving side domain to send and/or receive additional communications to/from the sending messaging server once the message is received.

Because Goodman does not disclose the above recited limitations of claim 21, claim 21, and dependent claims 22-26 and 30 are allowable over Goodman.

In addition to the above described differences between Goodman and the present application, claim 21 has also been amended to include a limitation of “calculating an answer hash value using a hashing algorithm that alters a standard application of SHA-1 sub-functions.” This particular limitation was previously part of claim 31 which was indicated by the Examiner to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. As claim 21 now contains

this limitation, claim 21, and dependent claims 22-26 and 30 are allowable over Goodman.

Claims 21-23, 25-28, 30, 32, 36-41, 43, and 46-49 were also rejected under 35 U.S.C §102(e) as being anticipated by Lindeman.

As stated above, embodiments of the present invention relate to complex processing of an email message on the server side prior to an email message being sent. An answer document, sent along with the email message, indicates to a receiving computer that processing cycles were expended in identifying the answer document prior to the message being sent. Thus, once the email message is received, there is no need for continued communication between the sending computer system and the receiving computer system in order to determine whether a message is spam.

In contrast, Lindeman discloses a method and system for filtering spam where messages are delivered to a user only when the sender is an approved sender. (*Lindeman*, para. [0011]). In describing this process, Lindeman discloses that once a message is received, a determination is made as to whether the sender is an approved or trusted sender. An approved sender is “a sender who is included in a list of senders from which a user may receive an electronic message.” (*Lindeman*, para. [0083]). If it is determined that the sender is not an approved sender “a confirmation request message is sent to determine if messages received by this sender are spam. When the sender replies to the confirmation request message, the sender becomes a trusted or an approved sender.” (*Lindeman*, para. [0083]). Once the sender has been approved the message is delivered. If however, the confirmation request message is not returned by the sending computer the message is treated as spam.

However, Lindeman does not disclose “an act of the sending messaging server identifying an answer document using the computational puzzle” and “enabling verification by the receiving side domain that the sending messaging server expended computational resources without further communication with the sending messaging server” as recited in claim 21.

Because Lindeman fails to disclose or suggest at least the above recited limitations of claim 21, claim 21 and its dependent claims are not anticipated by Lindeman.

Claim 21 also recites in part “calculating an answer hash value using a hashing algorithm that alters a standard application of SHA-1 sub-functions.” As stated above, this particular limitation of claim 31 was indicated by the Examiner to be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claim. In response, claim 21 has been amended to include the limitations of claim 31. Because Lindeman also fails to disclose or suggest application of SHA-1 sub-functions as recited in claim 21, claim 21 and its dependent claims are not anticipated by Lindeman.

With respect to claims 36 and 47, these claims recite in part “an act of applying a hashing algorithm that alters the standard application of SHA-1 sub-functions.” This particular limitation was previously claimed in claim 42. Claim 42 was indicated by the Examiner to be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claim. In response, claims 36 and 47 have been amended as indicated above to include the limitations of claim 42. Because Lindeman fails to disclose or suggest at least the above recited limitation of claims 36 and 47 these claims, and their respective dependent claims, are allowable over Lindeman.

With respect to claim 46, claim 46 contains similar limitations to claim 21. Therefore, Applicants reiterate the arguments made above with respect to claim 21 and submit that Lindeman does not disclose or suggest at least the above recited limitations of claim 46. Therefore, claim 46 is allowable over Lindeman for at least the same reasons.

Claim Rejections - 35 U.S.C. 103(a)

Claim 24 depends from claim 21 and therefore contains all of the above recited elements of claim 21. As discussed, Lindeman does not disclose at least the above recited elements of claim 21 and Wilson does not make up for the deficiencies of

Lindeman. Therefore, claim 24 is not rendered obvious by the recited combination of references.

Allowable Subject Matter

Claims 29, 31, 33-35, 42 and 44 were objected to for being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response and as indicated above, independent claims 21, 36, 46, and 47 have been amended to include claims 31 and 42 respectively. Therefore, claims 21, 36, 46, and 47, along with their respective dependent claims are allowable.

Support For Claim Amendments

Support for the claim amendments may be found in the following paragraphs of the specification.

Claims 21 and 46: Paragraphs 110-112 and 126-127.

Claims 36 and 47: Paragraphs 110-112.

Conclusion

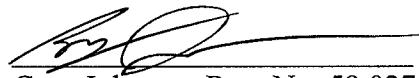
This Amendment fully responds to the Office Action mailed on April 23, 2008. Still, that Office Action may contain arguments and rejections that are not directly addressed by this Amendment due to the fact that they are rendered moot in light of the preceding arguments in favor of patentability. Hence, failure of this Amendment to directly address an argument raised in the Office Action should not be taken as an indication that the Applicant believes the argument has merit. Furthermore, the claims of the present application may include other elements, not discussed in this Amendment, which are not shown, taught, or otherwise suggested by the art of record. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

A petition for a three (3) month extension of time has been included herewith. It is believed that no other fees are due with this Response. However, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment with respect to this patent application to the credit card on file.

In light of the above remarks and amendments, it is believed that the application is now in condition for allowance and such action is respectfully requested. Should any additional issues need to be resolved, the Examiner is requested to telephone the undersigned to attempt to resolve those issues.

Respectfully submitted
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